

A low-cost versatile system for continuous real-time respiratory activity measurement as a tool in environmental research

Tamara Djerdj¹, Vesna Peršić¹, Davorka K. Hackenberger¹, Domagoj K. Hackenberger¹, Branimir K. Hackenberger^{1,*}

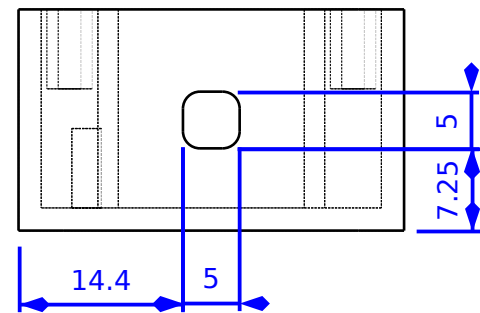
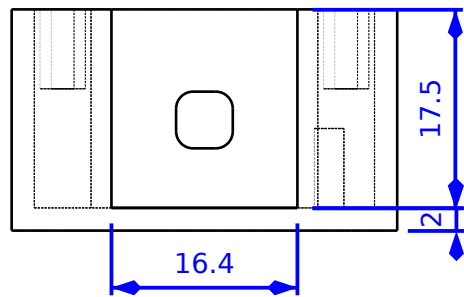
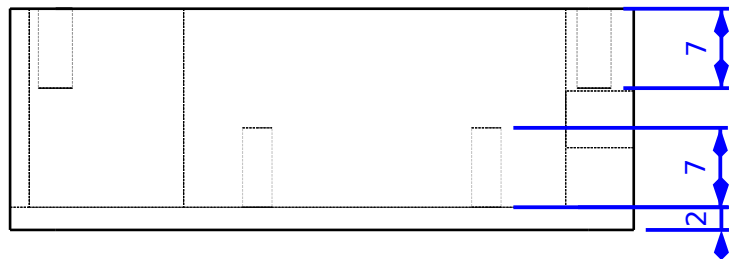
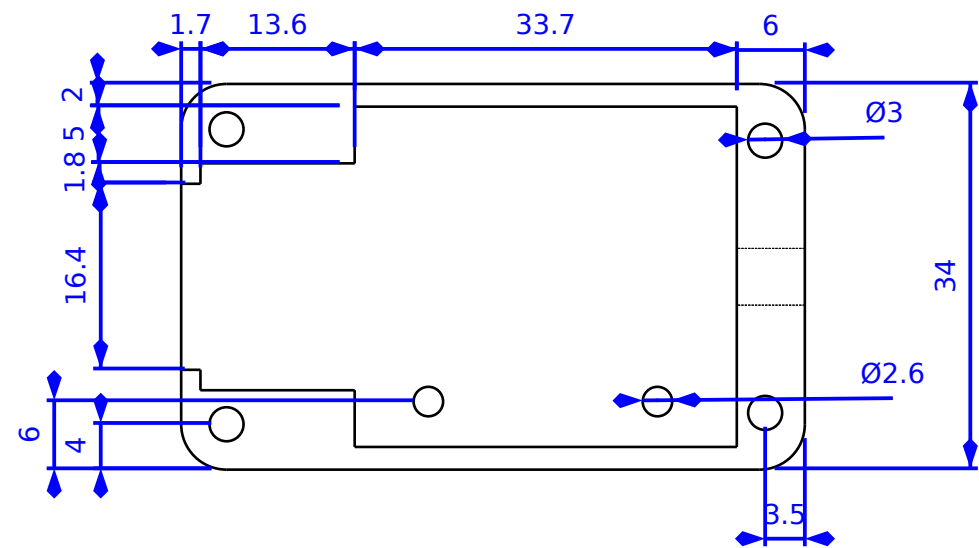
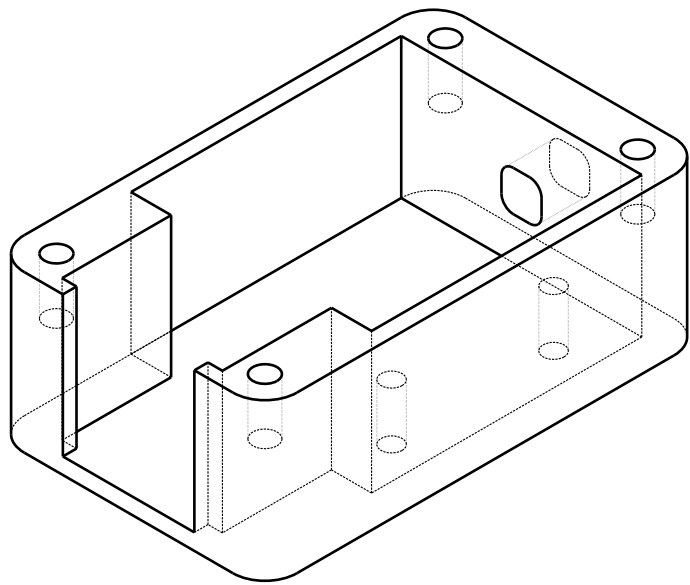
¹ *Josip Juraj Strossmayer University of Osijek, Department of Biology, Cara Hadrijana 8/A, HR-31000 Osijek, Croatia*

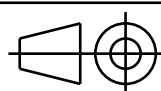

** To whom correspondence should be addressed at Josip Juraj Strossmayer University of Osijek, Department of Biology, Cara Hadrijana 8/A, 31000 Osijek, Croatia*

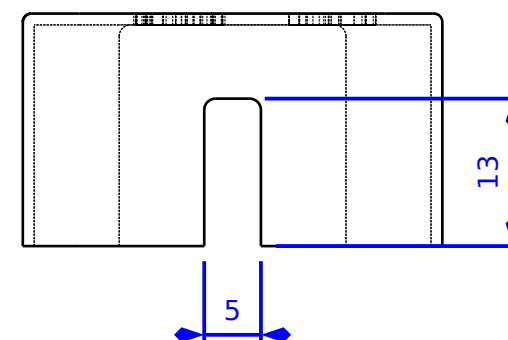
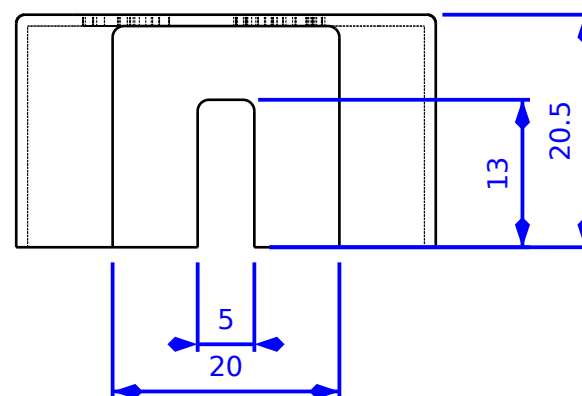
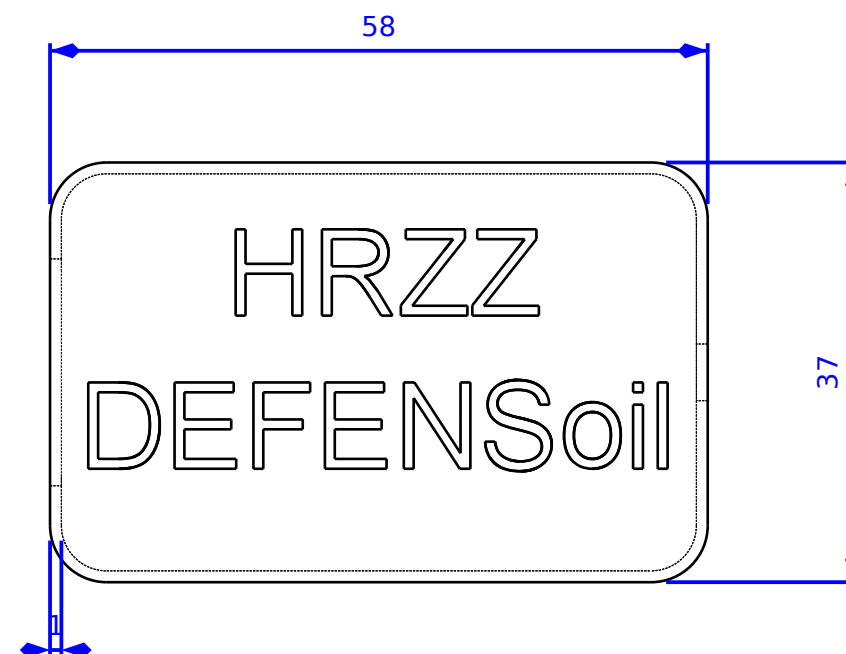
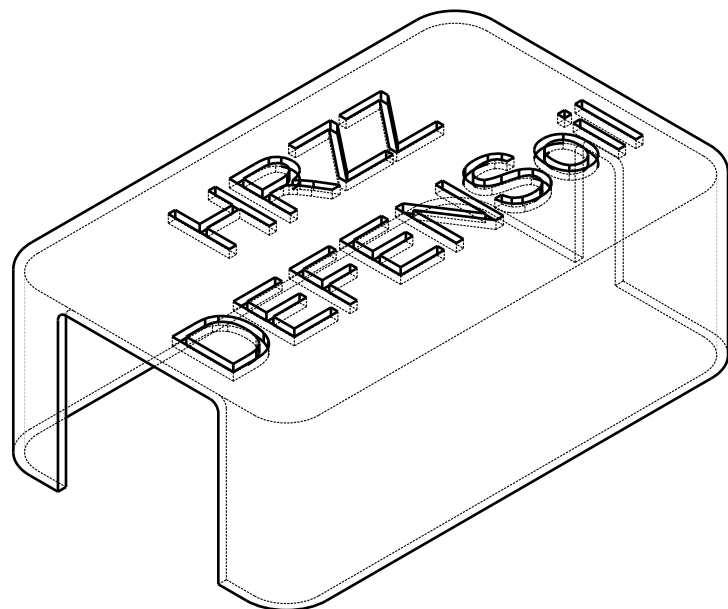
Fax: +385 31 399-939. Phone: +385 31 399-910. E-mail: hackenberger@biologija.unios.hr

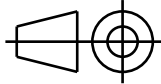

Supplementary Material S2. Drawings and assembly of 3D printed parts

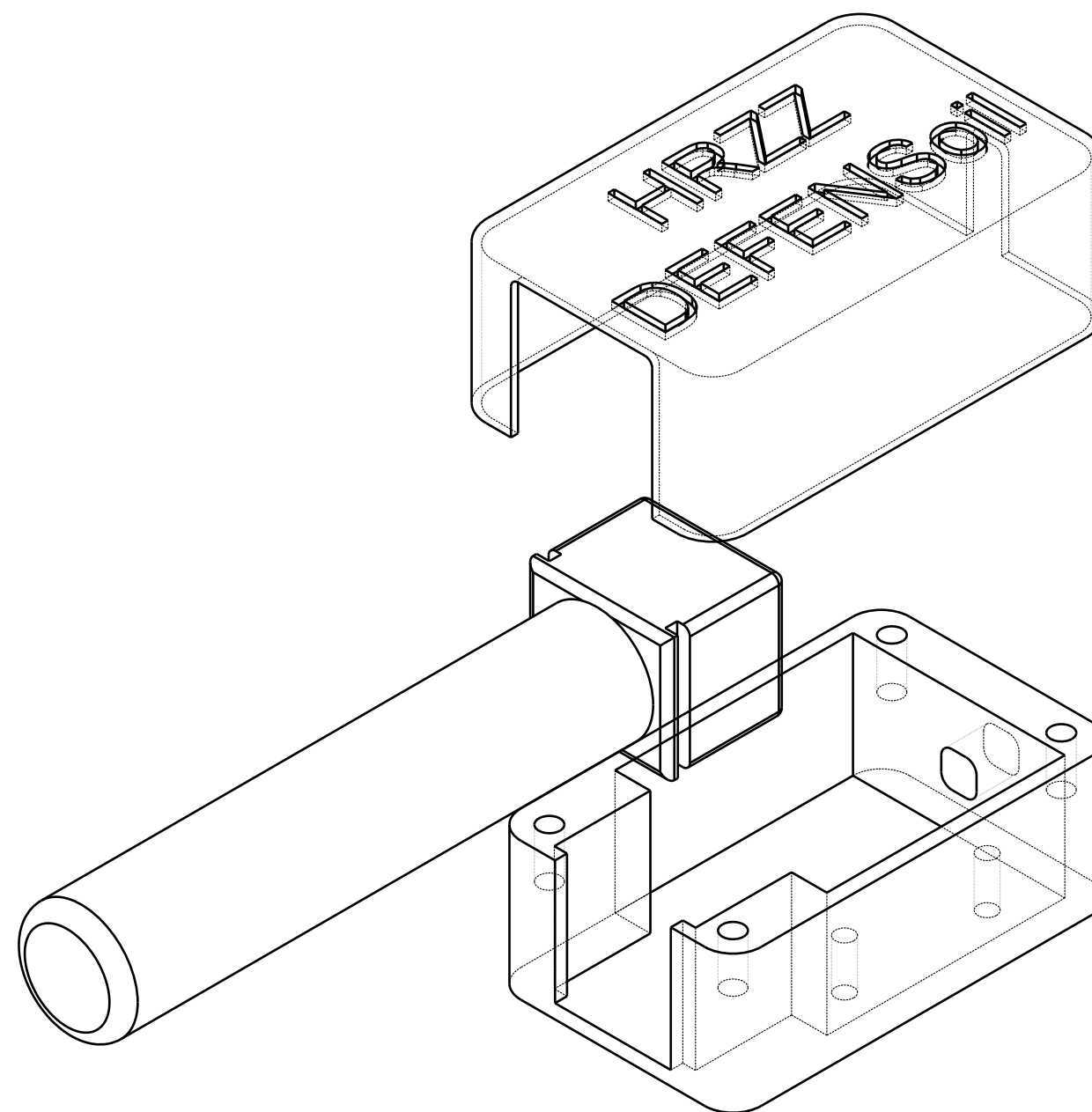
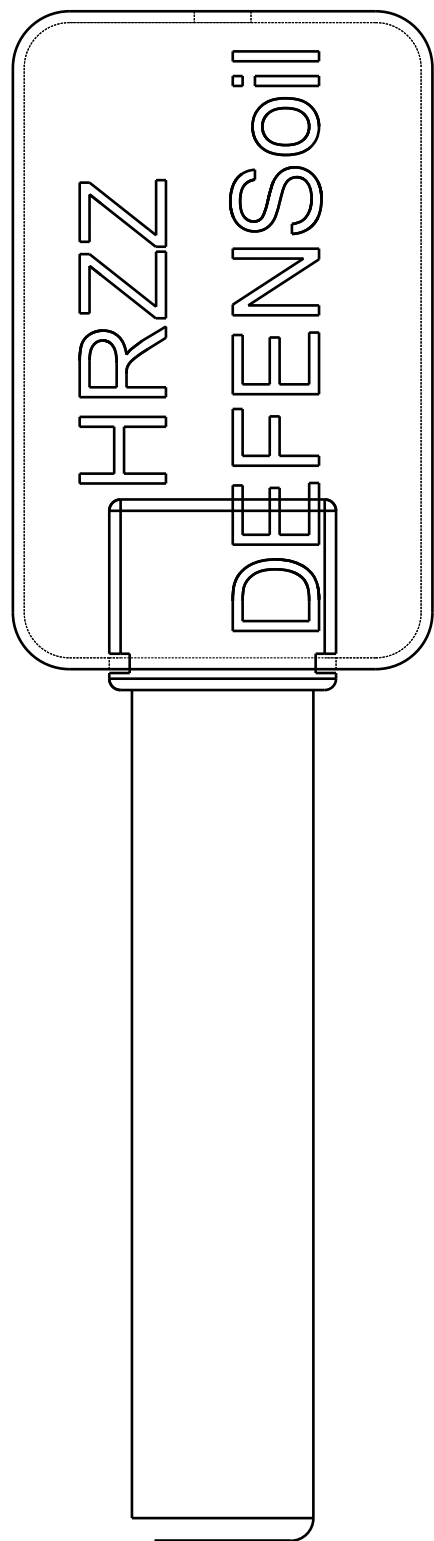
Models designed in FreeCAD

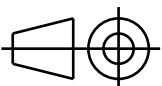



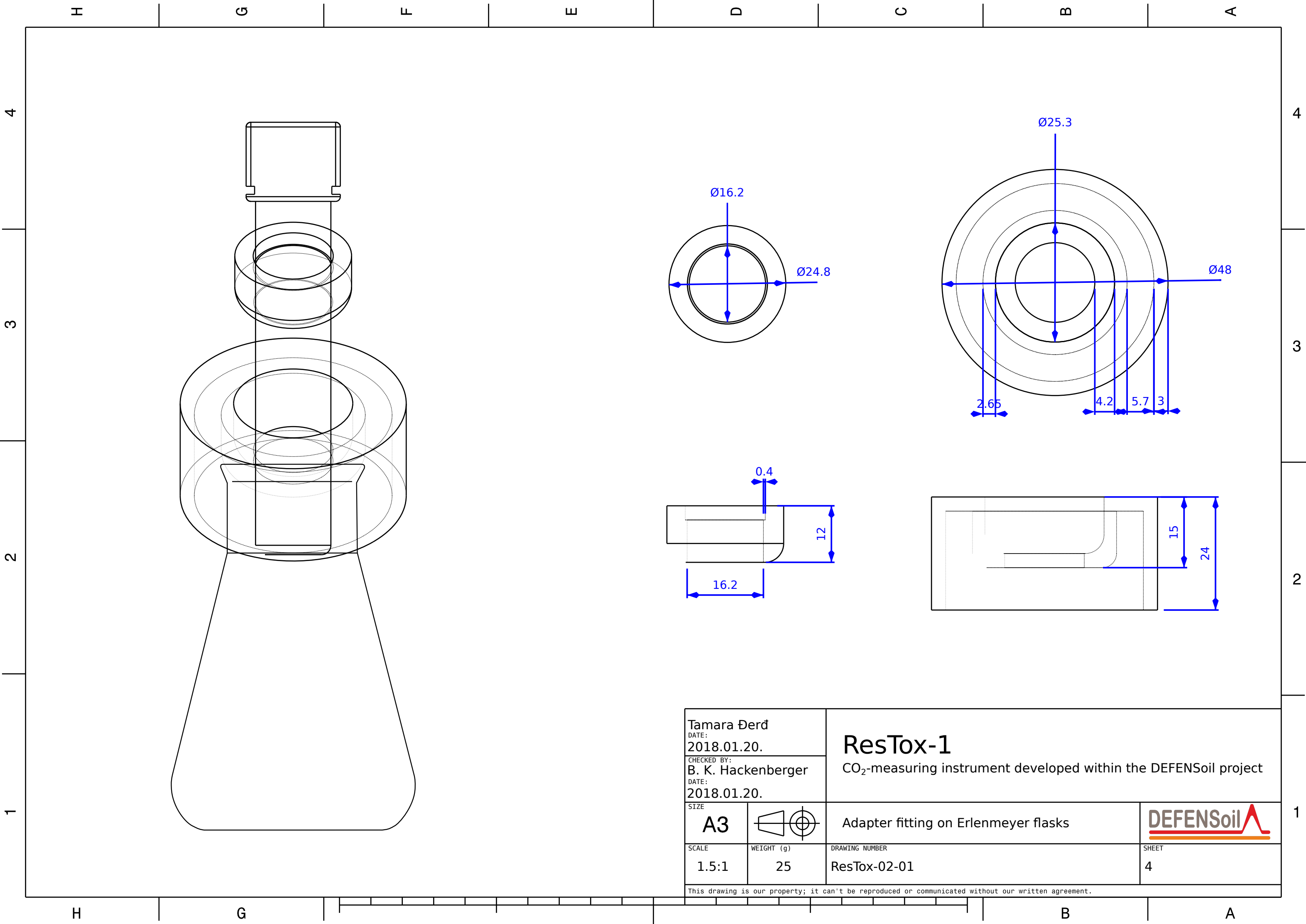
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CHECKED BY: B. K. Hackenberger DATE: 2018.01.12.			
SIZE A3		Protective casing for the CO ₂ sensor	
SCALE 1.5:1	WEIGHT (g) 15		
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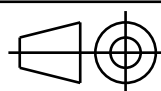



Tamara Đerđ DATE: 2018.01.12.		<h1>ResTox-1</h1> <p>CO₂-measuring instrument developed within the DEFENSoil project</p>	
CHECKED BY: B. K. Hackenberger DATE: 2018.01.12			
SIZE A3		Protective casing for the CO ₂ sensor	
SCALE 1.5:1	WEIGHT (g) 6		
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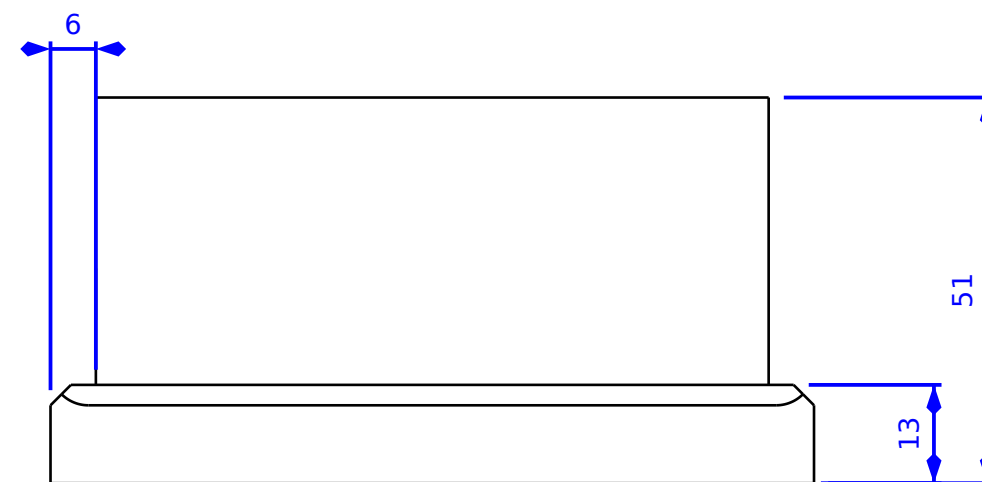
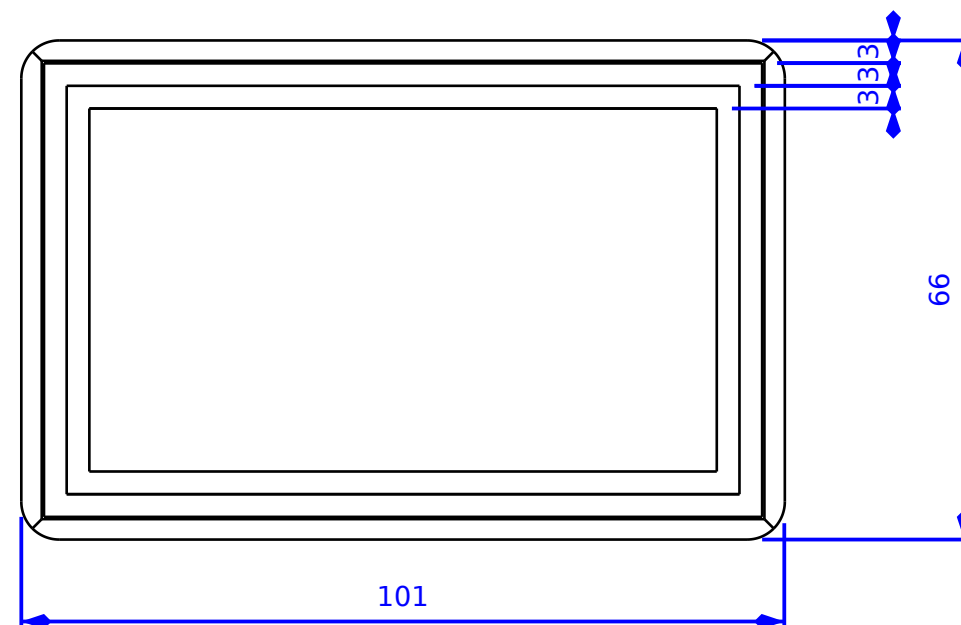
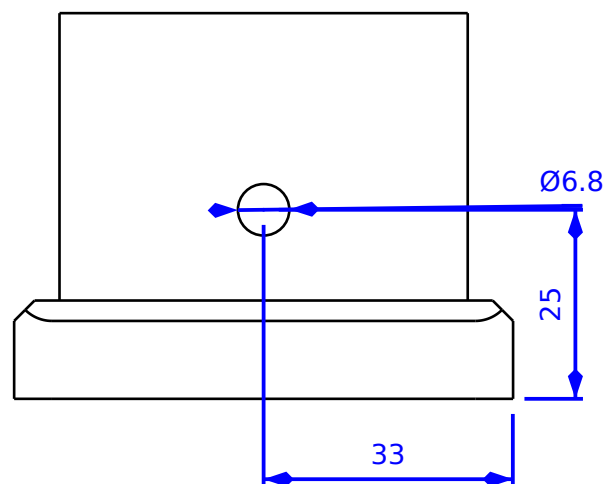
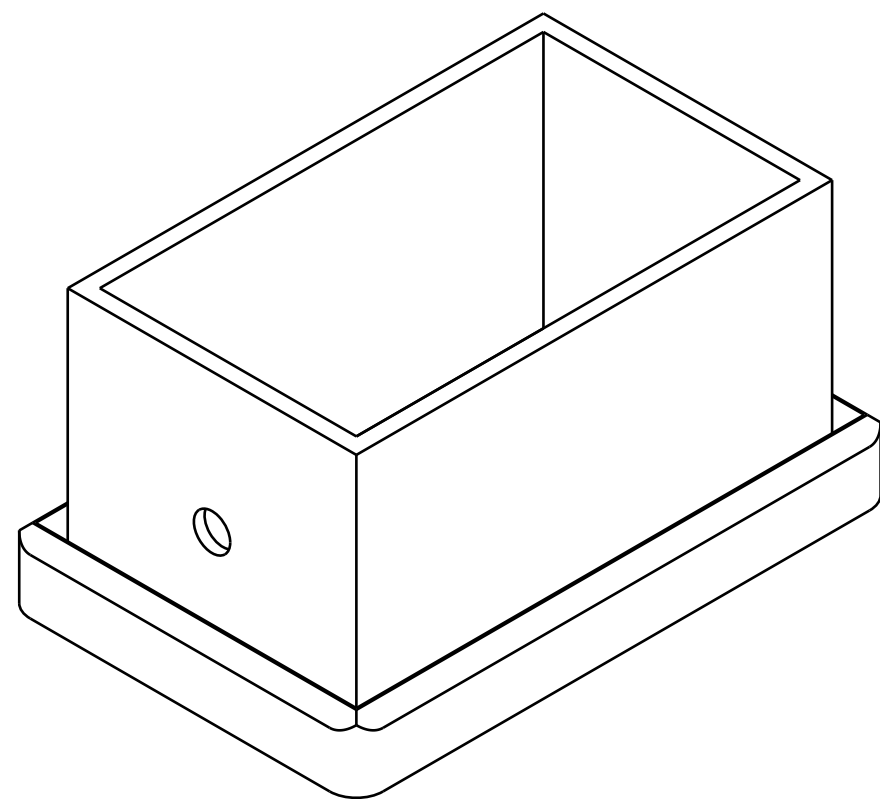


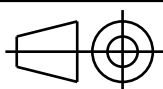

Tamara Đerđ DATE: 2018.01.12.		ResTox-1 CO ₂ -measuring instrument developed within the DEFENSoil project	
CHECKED BY: B. K. Hackenberger DATE: 2018.01.12.			
SIZE A3		Protective casing for the CO ₂ sensor	
SCALE 1.5:1	WEIGHT (g) 21		
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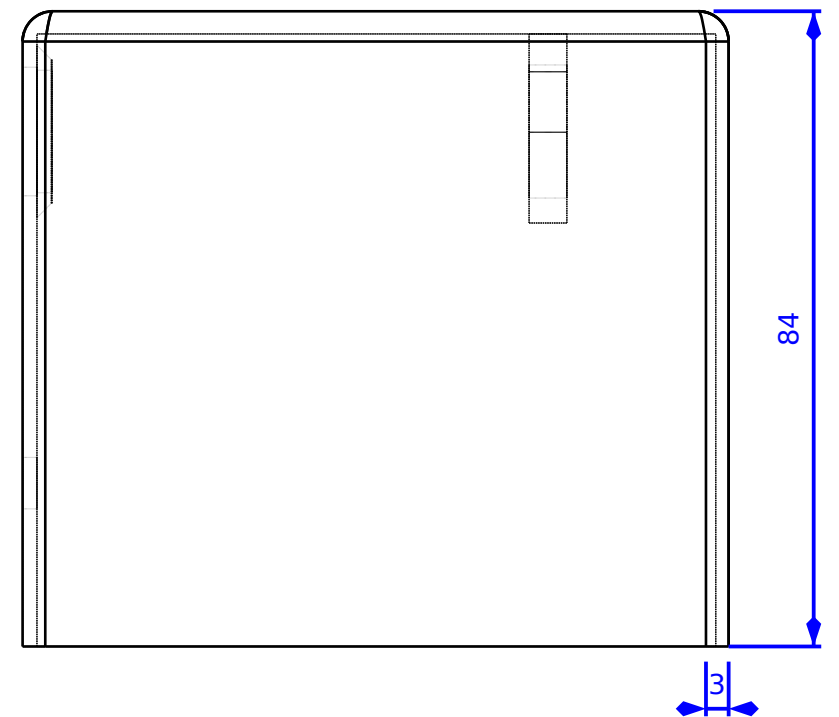
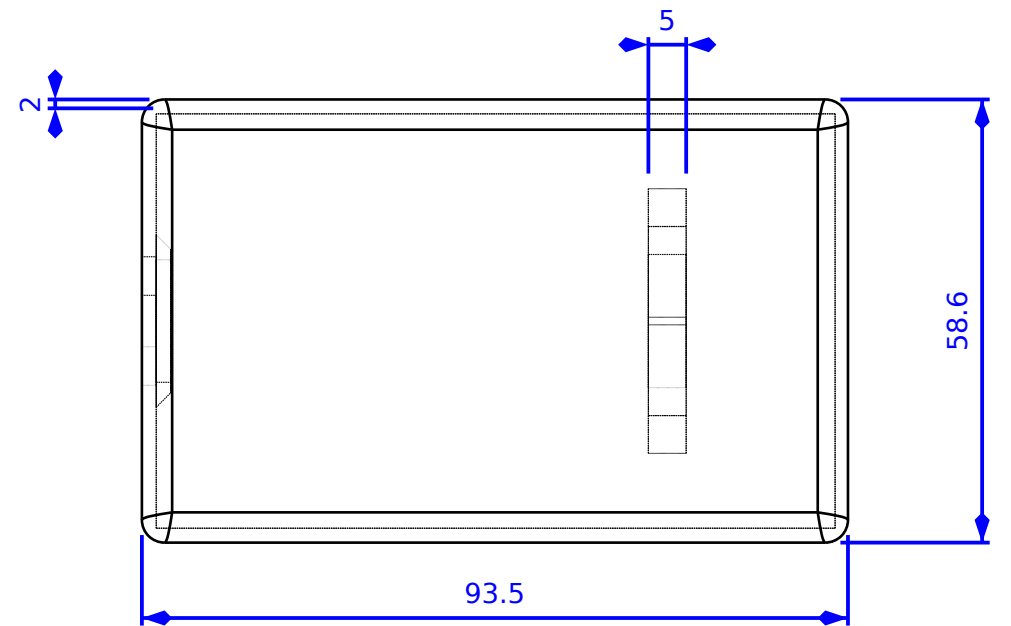
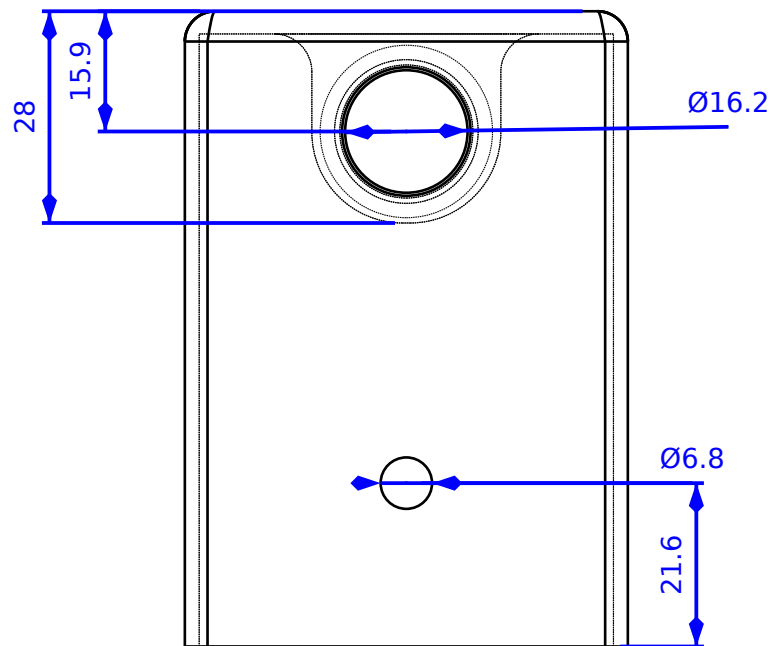
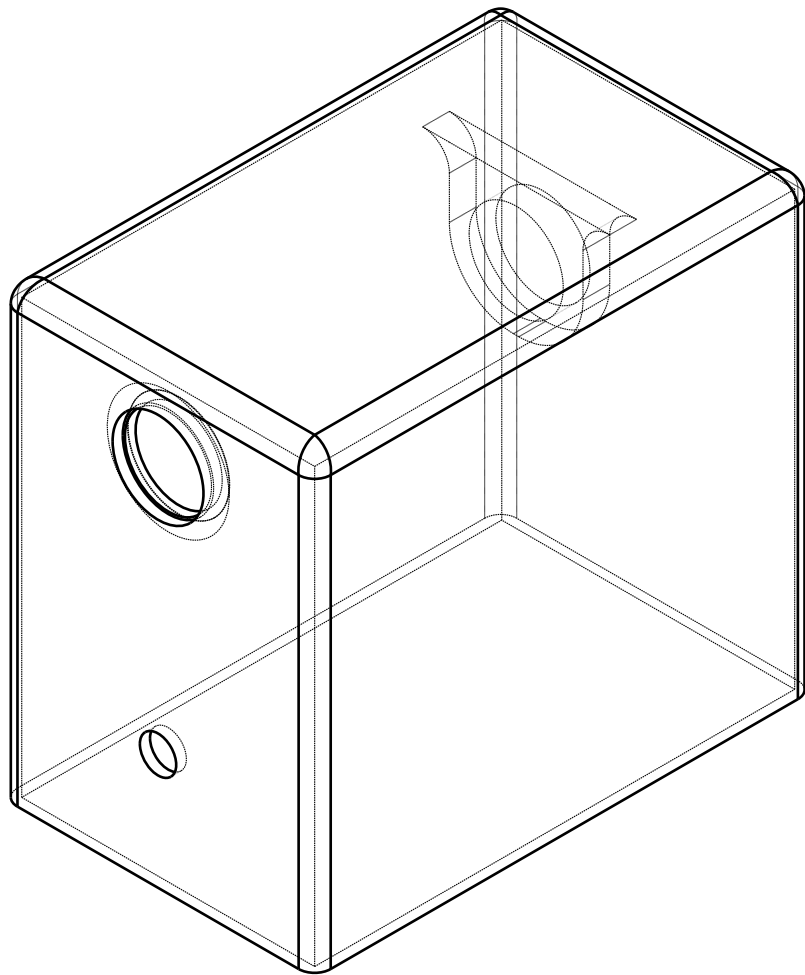


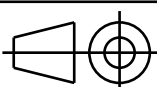

<div>Tamara Đerđ</div> <div>DATE:</div> <div>2018.01.20.</div>		<div>ResTox-1</div> <div>CO₂-measuring instrument developed within the DEFENSoil project</div>	
<div>CHECKED BY:</div> <div>B. K. Hackenberger</div> <div>DATE:</div> <div>2018.01.20.</div>			
<div>SIZE</div> <div>A3</div>		<div>Adapter fitting on Erlenmeyer flasks</div>	
<div>SCALE</div> <div>1.5:1</div>	<div>WEIGHT (g)</div> <div>25</div>	<div>DRAWING NUMBER</div> <div>ResTox-02-01</div>	<div>SHEET</div> <div>4</div>
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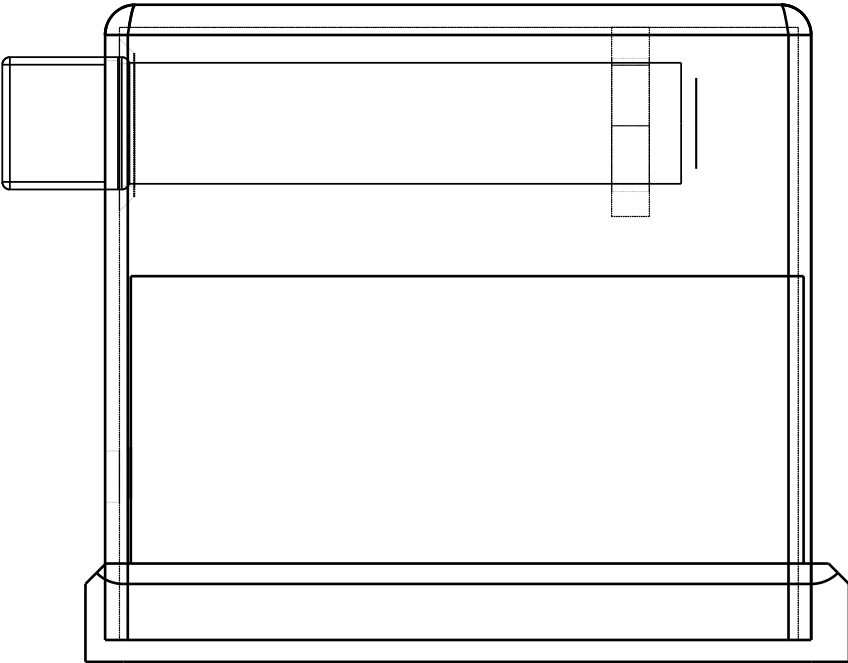
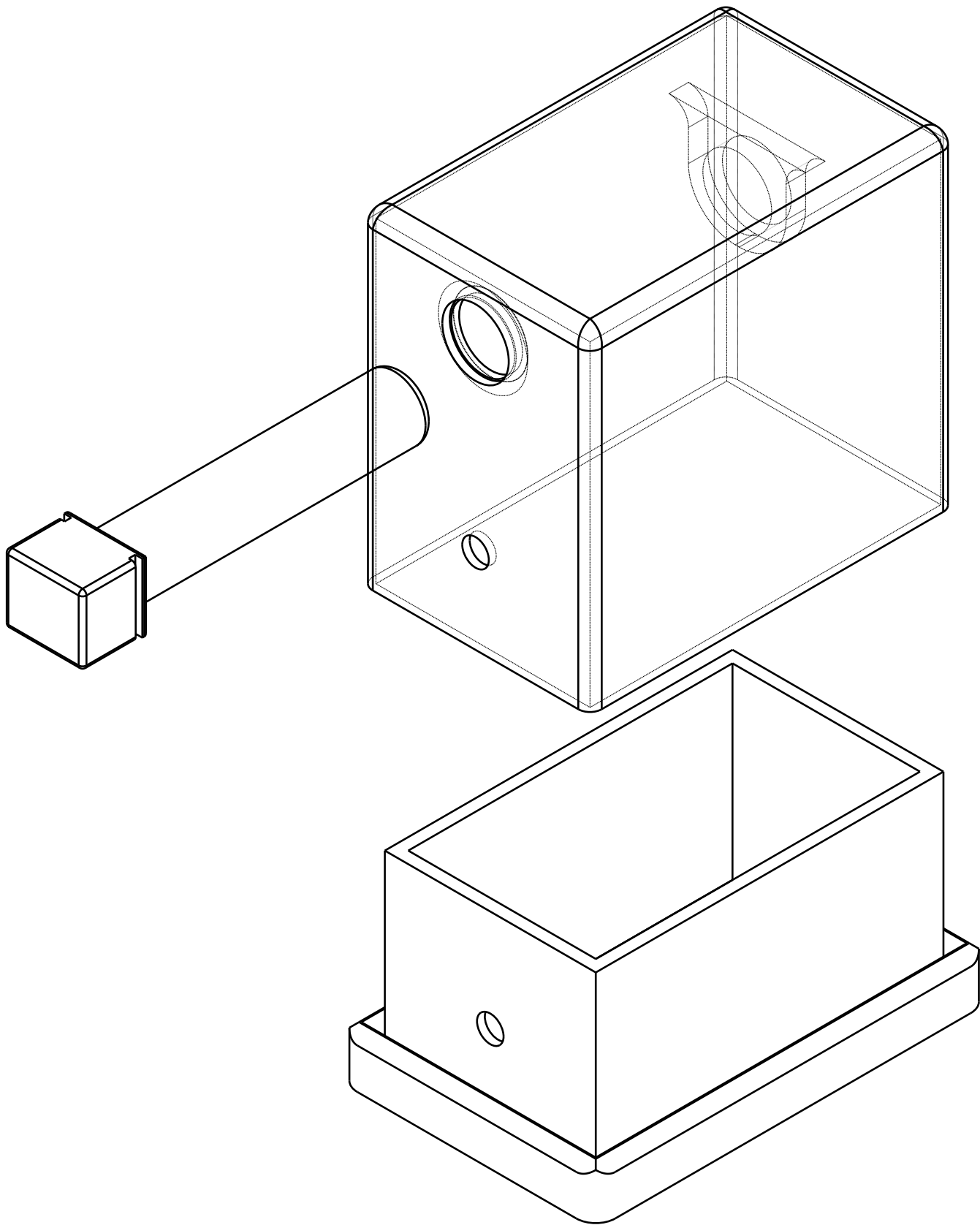
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DESIGNED BY: Tamara Đerđ DATE: 2018.02.03.		<div>ResTox-1</div> <div>CO₂-measuring instrument developed within the DEFENSoil project</div>	
CHECKED BY: B. K. Hackenberger DATE: 2018.02.03.			
SIZE <div>A3</div>		Soil respiration measurement chamber	
SCALE <div>1:1</div>	WEIGHT (g) <div>75</div>	DRAWING NUMBER <div>ResTox-03-01</div>	SHEET <div>5</div>
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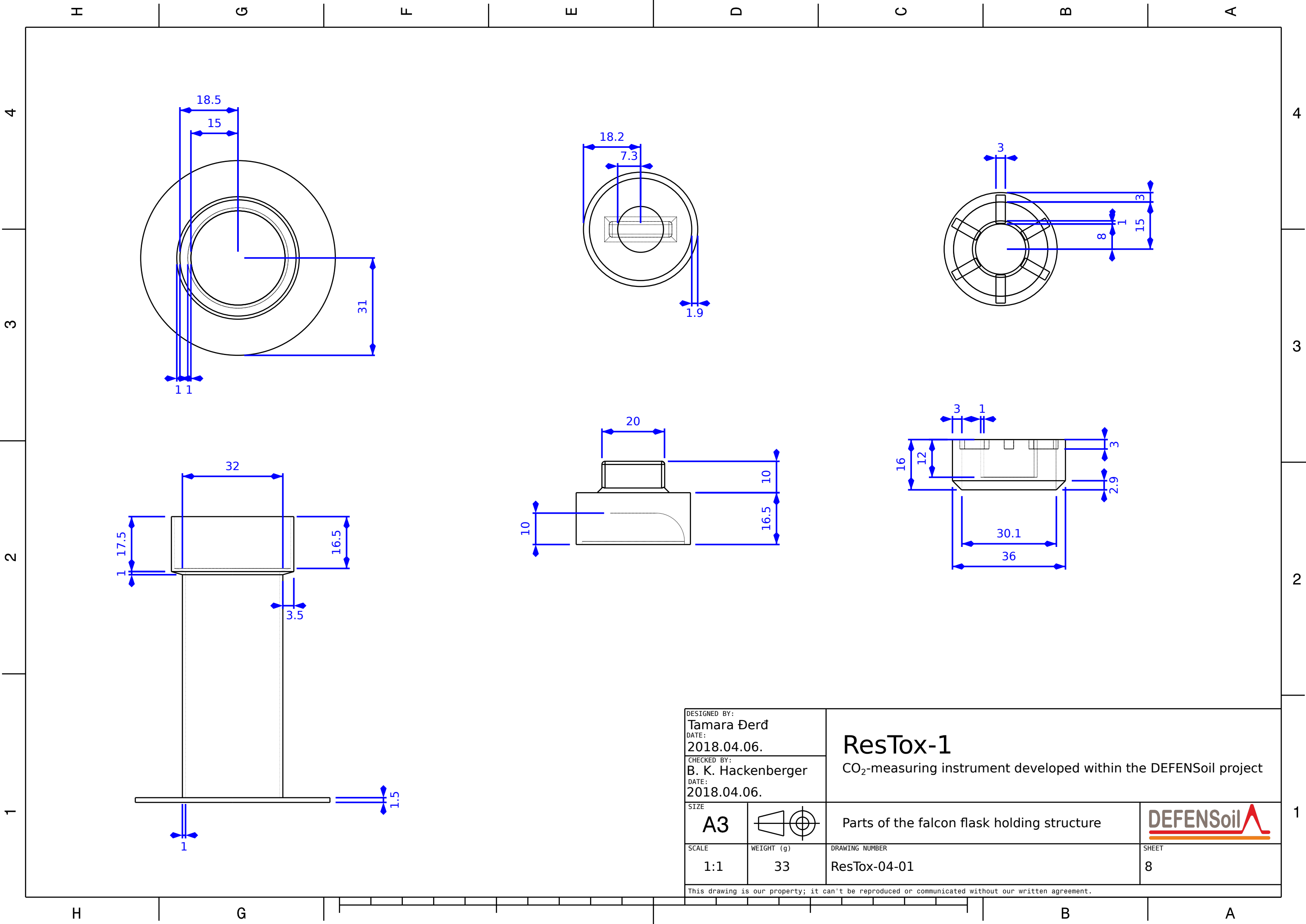


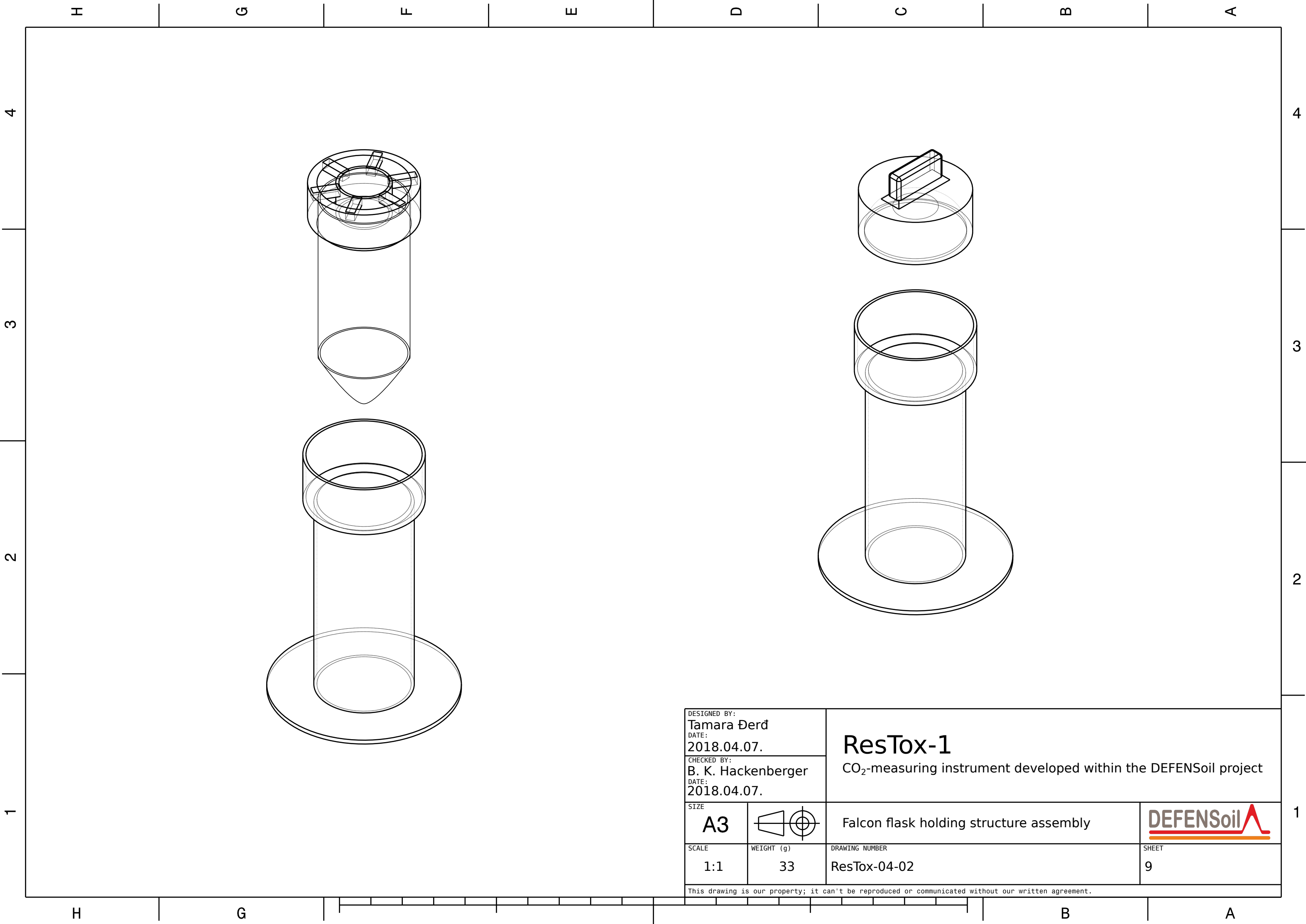
DESIGNED BY: Tamara Đerđ DATE: 2018.02.03.		<div>ResTox-1</div> <div>CO₂-measuring instrument developed within the DEFENSoil project</div>	
CHECKED BY: B. K. Hackenberger DATE: 2018.03.02.			
SIZE <div>A3</div> <div></div>		Soil respiration measurement chamber	<div>DEFENSoil</div> 
SCALE <div>1:1</div>	WEIGHT (g) <div>75</div>	DRAWING NUMBER <div>ResTox-03-02</div>	SHEET <div>6</div>
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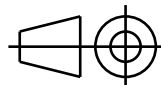



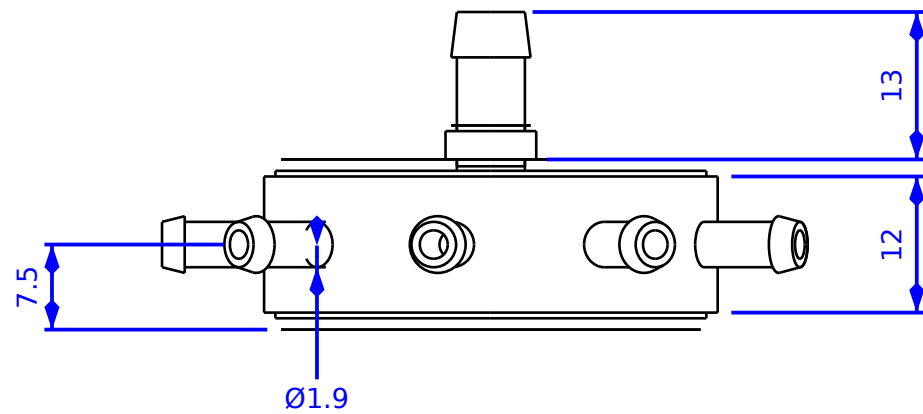
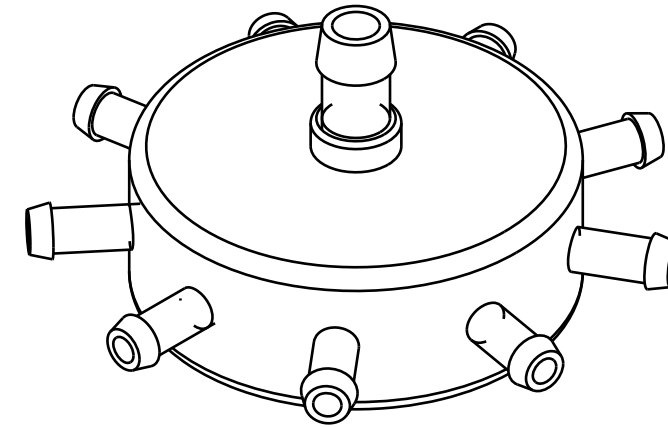
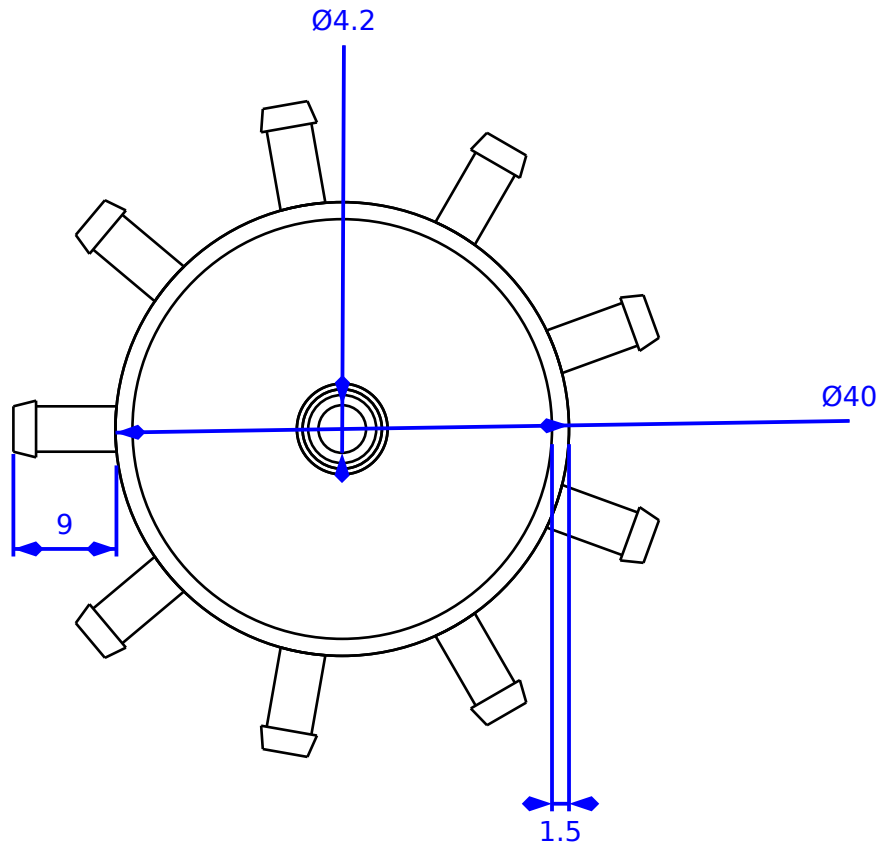
DESIGNED BY: Tamara Đerđ DATE: 2018.02.03.		<div>ResTox-1</div> <div>CO2-measuring instrument developed within the DEFENSoil project</div>	
CHECKED BY: B. K. Hackenberger DATE: 2018.02.03.			
SIZE <div>A3</div>		Soil respiration measurement chamber	<div>DEFENSoil</div>
SCALE <div>1:1</div>	WEIGHT (g) <div>75</div>	DRAWING NUMBER <div>ResTox-03-03</div>	SHEET <div>7</div>
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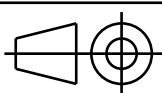

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DESIGNED BY: Tamara Đerd DATE: 2018.04.07.		<div>ResTox-1</div> <div>CO₂-measuring instrument developed within the DEFENSoil project</div>	
CHECKED BY: B. K. Hackenberger DATE: 2018.04.07.			
SIZE <div>A3</div>		Falcon flask holding structure assembly	
SCALE <div>1:1</div>	WEIGHT (g) <div>33</div>	DRAWING NUMBER <div>ResTox-04-02</div>	SHEET <div>9</div>
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DESIGNED BY: Tamara Đerđ DATE: 2018.05.23.		ResTox-1 CO ₂ -measuring instrument developed within the DEFENSoil project	
CHECKED BY: B. K. Hackenberger DATE: 2018.05.23.			
SIZE A3		Tube splitter	
SCALE 1.5:1	WEIGHT (g) 6		
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